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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,976	10/14/2003	Ismael A. Hernandez	9325-73 (179904)	7120

7590 09/28/2005

Thomas J. Durling
DRINKER BIDDLE & REATH LLP
One Logan Square
18th & Cherry Streets
Philadelphia, PA 19103-6996

EXAMINER

HAUGLAND, SCOTT J

ART UNIT	PAPER NUMBER
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3654

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/685,976

Applicant(s)

HERNANDEZ ET AL.

Examiner

Scott Haugland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 1-11, 23-32 and 44-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 and 33-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/1/04, 12/27/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of the invention of group I (claims 1-49) and species IV in the reply filed on 5/31/05 is acknowledged. The traversal is on the ground(s) that the Office action did not give reasons why the species listed are independent or distinct and did not give reasons for insisting on upon restriction between the species. This is not found persuasive because the disclosed species are not disclosed as being dependent upon one another. They are separate and independent devices. No additional reasons for insisting on restriction between independent species are necessary (MPEP 808.01(a)).

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-11, 23-32, and 44-49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/31/05.

Claims 50 and 51 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5/31/05.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16, 19, and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 is unclear since the elected species does not appear to include a start-up groove having a portion tapered in a direction around the circumference of the tube and a different portion that widens in the same direction. This appears to be true only of the Figs. 3A, 3B embodiment.

Claim 19 is unclear since the elected species does not appear to include a yarn catch insert comprising a barb extending beyond the portion of its side surface that cooperates with a side surface of the hole to form the start-up groove. This structure is part of the Figs. 22-24 embodiment of the invention.

Claim 36 is unclear since the elected species does not appear to include a yarn carrier having a hole with a bulbous head at one end leading to a longitudinal section that widens as it extends from the bulbous head. This structure is shown in Fig. 20.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Adams et al (U.S. Pat. No. 4,852,823).

Adams et al discloses a yarn winding tube having a peripheral wall 25 and a yarn catch insert 41 for insertion into a hole 31 formed through the yarn winding tube. The yarn catch insert 41 has an inside surface (lower face 43 in Fig. 4), an outside surface (upper face 43 in Fig. 4), and a side surface (extending between faces 43). A portion of the side surface is positioned opposite a portion of a side surface of the hole when the insert is inserted into the hole to form a start-up groove between the portion of the side surface of the yarn catch insert and the portion of the side surface of the hole. A portion of the start-up groove is tapered in a direction along a circumference of the tube, e.g., the portion beginning at point 34 and upward and to the left in Fig. 2. The start-up groove tapers to a pinch point. The insert is made of plastic (col. 3, lines 40-41).

With regard to claim 14, note that the edge between the outside surface 43 of the yarn catch insert and the portion of its side surface is radiused (Fig. 4).

With regard to claim 16, a portion (e.g., starting at point 34 and traveling upward in Fig. 2) of the start-up groove is tapered in a direction around the circumference of the tube and a different portion of the start-up groove (e.g., starting at point 35 and traveling upward in Fig. 2) widens in the same direction around the circumference of the tube.

With regard to claim 19, the yarn catch insert of Adams et al is seen to include a barb extending from its side surface to the extent that Applicants' yarn catch insert of Figs. 14-19B does.

With regard to claim 20, the yarn catch insert 41 has a lower portion (any of the lower portions of the insert that engage the sides of the hole) having a width corresponding to the width of the hole in the tube and an upper portion (note the rounded portion adjacent the top surface 43 of the insert in Fig. 4) having a width less than the width of the hole.

With regard to claim 21, the outside surface of the yarn catch insert is tapered radially inwardly adjacent to the start-up groove as a result of the rounded edges adjacent the inside and outside surfaces 43 (Fig. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al.

Adams et al is described above.

Adams et al does not disclose that the hole in the yarn winding tube is non-symmetrical.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the hole 31 of Adams et al non-symmetrical since it would

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have been clear that the hole need not have the precise shape shown in Adams et al and need not be symmetrical to perform its intended function.

With regard to claim 36, the hole 31 has a bulbous head (larger left portion in Fig. 2) that leads to a longitudinal section (right portion of hole in Fig. 2 bounded by surfaces 37, 38) that widens as it extends from the bulbous head.

Claims 37-40 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunlap (U.S. Pat. No. 2,679,989) in view of either Powel et al (U.S. Pat. No. 4,901,941) or Adams et al.

Dunlap discloses a yarn carrier comprising a hollow cylindrical inner tube 25 and a hollow cylindrical outer tube 31 having a longitudinal axis parallel to a longitudinal axis of the inner tube and an inner diameter greater than the outer diameter of the inner tube.

Dunlap does not disclose holes formed along portions of the circumferences of the inner and outer tubes.

Powel et al teaches providing a tubular yarn carrier with a hole 25, 110 through the wall of the yarn carrier to facilitate severing of yarn to free a transfer tail.

Adams et al teaches providing a tubular yarn carrier with a hole 31 through a wall of the yarn carrier to receive a yarn catch insert 41 for retaining a yarn end on the carrier.

It would have been obvious to one having ordinary skill in the art to provide the yarn carrier of Dunlap with a hole entirely through the wall of the yarn carrier as taught

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by Powel et al to facilitate severing of a yarn end or as taught by Adams et al to receive a yarn catch insert to retain a yarn end on the yarn carrier. The resulting modified yarn carrier of Dunlap would have aligned holes in the inner and outer tubes.

With regard to claim 40, Dunlap appears to indicate that outer tube 31 is made of paper (col. 2, line 47; col. 3, line 55). In any case, it would have been obvious to make the outer tube of paper similarly to the inner tube to form a light weight and inexpensive bobbin.

Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunlap in view of either Powel et al or Adams et al as applied to claims 37 and 40 above, and further in view of Qiu et al (U.S. Pat. No. 5,505,395).

Dunlap does not disclose that the composition of the paper of the outer tube varies along the thickness of the outer tube or that an inside portion of the outer tube is softer than an outside portion of the outer tube.

Qui et al teaches forming a paper tube for winding yarn of a paper composition that varies along the thickness of the tube. Softer, lower density layers 26, 28 are located in an inside portion of the paper tube. Harder, higher density layers 22, 24 are located in an outside portion of the tube.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the outer tube of the yarn carrier of Dunlap with a paper composition that varies along the thickness of the tube as taught by Qui et al to improve the strength of the tube.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Japanese Doc. No. 5-43140 is cited to show a yarn carrier having inner and outer tubes and a yarn catch. Brown et al (U.S. Pat. No. 1,919,769) is cited to a winding support having inner supports with ribs embedded in a hollow winding tube. Van Deventer III (U.S. Pat. No. 2,967,026) is cited to show a winding support having inner and outer portions connected by ribs. Hendry, Jr. (U.S. Pat. No. 3,224,696) is cited to show a yarn carrier having inner and outer paper tubes. Johnson et al (U.S. Pat. No. 3,300,159) and Wang (U.S. Pat. No. 5,393,582) are cited to show yarn carriers formed of paper material having a composition that varies along the thickness of the carrier. Berger (U.S. Pat. No. 3,563,490) is cited to show a yarn carrier having a relatively compressible outer surface and a relatively rigid inner tubular core. Qiu et al (U.S. Pat. No. 6,851,643) is cited to show a yarn carrier formed from inner and outer tubes and having structure to compensate for the compressive forces exerted by the yarn wound on the carrier.

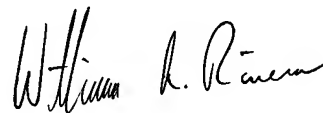
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571) 272-6945. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


sjh
8/1/05



WILLIAM A. RIVERA
PRIMARY EXAMINER